

**IN THE CLAIMS**

Please amend claims 3-9, 12-13, 15-18 and 20-22, shown below in the set of all existing  
25 claims, as follows. No additional fees are required because the Amendment still has 22 claims, as  
filed.

1           1.       **(Previously Amended)** A method for pre-processing an access plan generated for  
2 a query in a relational database management system to include a direct call mechanism replacing  
3 a lookup function of a run-time interpreter, said access plan including a plurality of operation  
4 codes, each of said operation codes being associated with one or more executable functions for  
5 performing the query, said method comprising the steps of:

6           (a)     determining from the access plan an executable function associated with a first  
7 operation code; and

8           (b)     augmenting said first operation code in the access plan with a pointer to said  
9 executable function to provide a direct call mechanism replacing a lookup function of a run-time  
10 interpreter.

1       2.       **(Original)** The method as claimed in claim 1, further comprising repeating steps (a) and  
2 (b) for the remaining operation codes in the access plan.

1       3.       **(Currently Amended)** The method as claimed in claim 1, wherein said step (b)  
2 comprises;

3           augmenting said first operation code in the access plan with a pointer to an intermediate  
4 function, ~~said intermediate function including~~ having a data structure, and  
5           for storing a pointer to said executable function in the data structure.

1       4.       **(Currently Amended)** The method as claimed in claim 3, wherein said data structure  
2 ~~includes~~ comprises means for storing information associated with said executable function or  
3 said first operation code.

1 5. **(Currently Amended)** The method as claimed in claim 1, wherein said step (b)  
2 comprises augmenting said first operation code in the access plan with another ~~a second~~ pointer  
3 to a data structure, said data structure providing means for storing information associated with  
4 said first operation code or said executable function.

1 6. **(Currently Amended)** The method as claimed in claim 1, ~~wherein said step (a) further~~  
2 comprising a step of assessing the executable function associated with the first operation code  
3 and, if applicable, replacing the direct call to the executable function with a direct call to a  
4 ~~second~~ another executable function.

1 7. **(Currently Amended)** The method as claimed in claim 3, wherein said intermediate  
2 function comprises ~~includes~~ processing operations for the first operation code or the executable  
3 function associated with the first operation code.

1 8. **(Currently Amended)** The method as claimed in claim 7, wherein said processing  
2 operations in the intermediate function comprise ~~include~~ gathering statistics on the use of the  
3 executable function associated with the first operation code.

1 9. **(Currently Amended)** The method as claimed in claim 7, wherein said processing  
2 operations in the intermediate function comprise ~~include~~ a pause for receiving user input before  
3 or after the direct call to the executable function.

1 10. **(Previously Amended)** A computer program product for use on a computer wherein  
2 queries are entered by a user for retrieving data in a relational database management system  
3 having a query optimizer for generating an access plan for executing the query, said query

4 optimizer including a direct call mechanism replacing the lookup function of a run-time  
5 interpreter, said computer program product comprising:  
6 a recording medium;  
7 means recorded on said recording medium for instructing said computer to perform the  
8 steps of:  
9 (a) determining an executable function associated with a first operation code in the  
10 access plan, the first operation code being one of a plurality of operation codes; and  
11 (b) augmenting said first operation code in the access plan with a pointer to said  
12 executable function to provide a direct call mechanism replacing a lookup function of a run-time  
13 interpreter.

1 11. (Original) The computer program product as claimed in claim 10, the means for  
2 instructing said computer further comprising repeating steps (a) and (b) for the remaining  
3 operation codes in the access plan.

1 12. (Currently Amended) The computer program product as claimed in claim 10, wherein  
2 said step (b) comprises:  
3 augmenting said first operation code in the access plan with a pointer to an intermediate  
4 function, ~~said intermediate function including~~ having a data structure, and  
5 ~~for storing a pointer to said executable function~~ in the data structure.

1 13. (Currently Amended) The computer program product as claimed in claim 12, wherein  
2 said data structure comprises ~~includes~~ means for storing information associated with said  
3 executable function or said first operation code.

1 14. **(Original)** The computer program product as claimed in claim 10, wherein said step (b)  
2 comprises augmenting said first operation code in the access plan with another pointer to a data  
3 structure, said data structure providing means for storing information associated with said first  
4 operation code or said executable function.

1 15. **(Currently Amended)** The computer program product as claimed in claim 10, wherein  
2 ~~said step (a) further comprising a step of~~ includes assessing the executable function associated  
3 with the first operation code and, if applicable, replacing a the direct call to the executable  
4 function with a direct call to another executable function.

1 16. **(Currently Amended)** The computer program product as claimed in claim 12, wherein  
2 said intermediate function ~~comprises~~ includes processing operations for the first operation code  
3 or the executable function associated with the first operation code.

1 17. **(Currently Amended)** The computer program product as claimed in claim 16, wherein  
2 said processing operations in the intermediate function comprise ~~include~~ gathering statistics on  
3 the use of the executable function associated with the first operation code.

1 18. **(Currently Amended)** The computer program product as claimed in claim ~~16~~ 12,  
2 wherein said processing operations in the intermediate function comprise ~~include~~ a pause for  
3 receiving user input before or after a the direct call to the executable function.

1 19. **(Previously Amended)** A relational database management system for use with a  
2 computer system wherein queries are entered by a user for retrieving data from tables, the  
3 relational database management system including a query optimizer for generating an access

4 plan associated with the queries entered by the user, said query optimizer including a direct call  
5 mechanism replacing a lookup function of a run-time interpreter, said relational database  
6 management system comprising:

7 (a) means for determining an executable function associated with each of a plurality  
8 of operation codes in the access plan; and

9 (b) means for augmenting said operation codes in the access plan with a pointer to  
10 said executable function associated with each operation code to provide a direct call mechanism  
11 replacing a lookup function of a run-time interpreter.

1 20. **(Currently Amended)** The relational database management system as claimed in claim  
2 19, wherein said means for augmenting said operation codes further comprises ~~includes~~ means  
3 for replacing said operation codes in the access plan with a pointer to an intermediate function,  
4 and wherein said intermediate function comprises ~~including~~ a data structure for storing a pointer  
5 to said executable function.

1 21. **(Currently Amended)** The relational database management system as claimed in claim  
2 20, wherein said data structure comprises ~~includes~~ means for storing information associated with  
3 said executable function or said operation codes.

1 22. **(Currently Amended)** The relational database management system as claimed in claim  
2 19, wherein said means for augmenting said operation codes further comprises ~~includes~~ means  
3 for adding another pointer to a data structure, said data structure providing means for storing  
4 information associated with said operation codes or said executable function.